WHAT IS CLAIMED IS:

1. A method of controlling a network node to process a
plurality of packet flows, the method comprising:

    receiving packets corresponding to a flow;

    determining if the packets in the flow
correspond to a communications protocol which is
responsive to congestion signaling;

    when said flow is determined to include packets
corresponding to a communications protocol which is
responsive to congestion signaling:

    determining if the first flow performs in a
manner indicative of responsive to congestion signaling;

    forwarding at least some received packets
corresponding to the first flow when it is determined
that the first flow performs in a manner indicating that
it is responsive to congestion signaling; and

    blocking the packets from said flow when said
first flow is determined to perform in a manner
indicating that it is non-responsive to congestion
signaling.

2. The method of claim 1, wherein the step of
determining if the packets in said flow correspond to a
communications protocol which is responsive to congestion
signaling includes:

    checking said flow to determine if it uses the
Transmission Control Protocol (TCP).

1   3.   The method of claim 1, wherein determining if the

2   flow performs in a manner indicative of responsive to

3   congestion signaling includes:

4   monitoring a flow rate of said flow to

5   determine if the monitored flow rate decreases in

6   response to congestion signaling.

1   4.   The method of claim 3, wherein the monitored flow

2   rate is a packet arrival rate at said network node.

1   5.   The method of claim 4, wherein said congestion

2   signaling includes dropped packet information.

1   6.   The method of claim 1, wherein the step of

2   forwarding at least some received packets includes:

3   determining if said flow rate of said flow

4   exceeds a baseline flow rate; and

5   performing a forced flow rate reduction

6   operation in response to determining that said flow rate

7   of said flow exceeds said baseline flow rate.

1   7.   The method of claim 6, wherein said step of

2   performing a forced flow rate reduction operation

3   includes:

4   dropping at least some received packets from

5   said flow thereby resulting in fewer forwarded packets

6   than received packets.

1   8.   The method of claim 1, further comprising the step
2   of:

3   generating a flow rate baseline for a class of
4   flows received by said node, the step of generating a
5   flow rate baseline including:

6   monitoring a plurality of flow rates, each one
7   of the plurality of flow rates being for one of a
8   plurality of flows in said class, received by said node
9   over a period of time; and

10   processing said monitored flow rates to
11   generate a composite flow rate for a flow in said class.

1   9.   The method of claim 8, wherein said composite flow
2   rate is an average flow rate.

1   10.   The method of claim 8, wherein said average flow
2   rate is a smoothed average flow rate.

1   11.   The method of claim 1, further comprising:
2   receiving packets corresponding to an
3   additional flow;
4   determining if the packets in the additional
5   flow correspond to a communications protocol which is
6   responsive to congestion signaling;
7   when said additional flow is determined to
8   include packets corresponding to a communications
9   protocol which is non-responsive to congestion signaling:
10   forwarding at least some received packets in
11   said additional flow.

1 12. The method of claim 11, wherein the step of
2 forwarding at least some received packets in said
3 additional flow includes:
4   determining if a flow rate of said additional
5 flow exceeds an additional baseline flow rate; and
6   performing a forced flow rate reduction
7 operation in response to determining that said flow rate
8 of said additional flow exceeds said additional baseline
9 flow rate.

1 13. The method of claim 12, wherein said step of
2 performing a forced flow rate reduction operation
3 includes:
4   dropping at least some received packets from
5 said additional flow thereby resulting in fewer forwarded
6 packets in said additional flow than received packets.

1 14. The method of claim 11, wherein the step of
2 determining if the packets in the additional flow
3 correspond to a communications protocol which is
4 responsive to congestion signaling includes the step of:
5   determining whether said additional flow
6 includes packets which are to be delivered using best
7 effort techniques.

1 15. A method of processing packets corresponding to a
2 plurality of packet flows at a network node, the method
3 comprising the steps of:

4   generating flow rate base lines for different

5   from flow rate information gathered during a preceding

6   time period;

7   receiving a flow of packets during a current

8   period of time;

9   comparing the flow rate of the received packet

10   flow to one of the generated base line flow rates; and

11   performing data reduction on the received

12   packet flow when the flow rate of the received packet

13   flow is higher than the said one of the generated base

14   line flow rates.

1   16.   The method of claim 15, wherein data reduction is

2   performed on said received packet flow at a rate which is

3   determined as a function of the received packet flow's

4   data rate and said one of the generated base line flow

5   rates.

1   17.   The method of claim 15, wherein the step of

2   generating flow rate base lines for different from flow

3   rate information gathered during a preceding time period

4   includes:

5   collecting flow rate information for a period

6   of time on a same day of a week for multiple weeks; and

7   performing at least one averaging operation

8   using at least some of said flow rate information.

1   18.   The method of claim 15, further comprising the steps

2   of:

3   monitoring the node to determine when it has

4 become saturated with packet traffic for a preselected

5 period of time; and

6   wherein said steps of comparing and performing

7 data reduction are performed in response to said

8 monitoring step determining that said node has become

9 saturated for the preselected period of time.

1 19. A network node comprising:

2   a traffic classifier for dividing flows of

3 packets into flows corresponding to protocol types which

4 support congestion control signaling and protocol types

5 which do not support the use of congestion control

6 signaling;

7   means for determining if a received flow of

8 packet traffic classified as corresponding to a protocol

9 type which is responsive to congestion signaling; and

10   means for blocking packets classified as

11 corresponding to a protocol type which should be

12 responsive to congestion signaling but which are part of

13 a flow which is determined to be non-responsive.

1 20. The node of claim 19, further comprising:

2   at least one stored flow rate baseline; and

3   means for comparing a flow rate of a received

4 flow to said flow rate baseline; and

5   means for performing a flow rate reduction

6 operation on said received flow when said means for

7   comparing determines that the flow rate of said received
8   flow exceeds said flow rate baseline.

1   21.   The node of claim 20, further comprising:
2   means for monitoring the status of the node to
3   determine when said node is saturated by packet traffic;
4   and
5   means for triggering data reduction operations
6   including the use of said stored traffic baseline in
7   response to the occurrence of a node saturation condition
8   for a set period of time.